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(54) Title: USE OF COMPOUNDS CAPABLE OF INHIBITING THE PROTEOLYTIC PROCESSING OF SEMAPHORINS FOR PREVENTION, TREATMENT, DIAGNOSIS AND PROGNOSIS OF AN INVASIVE DISEASE

(57) Abstract: The present invention relates to use of compounds directed to inhibiting expression and/or proteolytic processing semaphorins SEMA3E and/or sema3E and/or activation of a receptor by a proteolytic product of said semaphorins for the manufacture of a medicament for prevention, treatment, diagnosis and/or prognosis of an invasive disease. The invention features the compounds selected from the group comprising antisense compounds derived from the sequence of SEMA3E and/or sema3E, peptide compounds derived from the sequence of said semaphorins, anti-bodies against said semaphorins, and peptide compounds derived from the sequence of Plexin A receptor. Furthermore, the invention provides methods for prognosis and/diagnosis of malignancy of cancer based of estimation of the levels of expression and proteolytic processing of said semaphorins in a sample of a tissue or body fluid. The invention also concerns a method for producing an attractant polypeptide by establishing a cleavage product of SEMA3E and/or sema3E.

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